

Project Proposal: Cloud based movie streaming platform

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Group: 1

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Abstract: The motto of our project is to build a replica of real life streaming platforms like BiliBili, Tencent Video, Amazon Prime Video or Netflix. It will allow users to register, log in, browse movies, search for contents as well as manage a personal watchlist. It will be developed using web technologies like HTML, CSS, JS, Node.js, MySQL, Next.js and FastAPI etc. We want to gain practical hands on experience similar to the real world that's why this project is inspiring for us.

I. INTRODUCTION

In today's era, everyone remains distracted with stress from work and wants to spend their leisure time by watching movies or series. But YouTube does not have many movies or series available and also some websites are paid so its a difficulty for the user. For instance, a person might need multiple subscriptions in different movie/series website to see multiple movie/series. So it is costly and we want to make a website that is budget friendly and similar to Netflix, Amazon Prime Video or iQIYI. We will implement a log in page, register page, and also the interface will be easy for the user so that they can browse movies or search for a movie. It will have a frontend, backend as well as database management system all connected synchronously.

II. PROBLEM STATEMENT

Everybody nowadays prefer watching movie or series online instead of TV. Nobody watches TV nowadays(rarely anyone does). But the problem is a user need multiple subscriptions in different movie/series websites to watch multiple series/movies. This is not budget friendly for the user. So we want to make an online cloud based movie streaming platform which will have many different genres of movies/series here. And its for learning purpose and simplified version to understand how real platform works. We will connect the frontend, backend and database systems simultaneously and synchronously so that it functions effectively.

III. OBJECTIVES:

Our purpose of the project is to implement a search function in the user panel, create or upload function in the admin panel. And also, an appropriate user login and admin login page and our website will have more functionality like Tencent Video, BiliBili or like Amazon Prime Video. We will try to use GitHub as much as possible.

IV. PROPOSED FEATURES

From the user perspective, it will have a user registration page, login and log out

page, a browse of movies or series and search movies or series function. It may also have a function which will add a particular movie or series to a watchlist. Users can also view movie or series details like the release date, IMDB rating as well as the main actors/actress which participated in the desired movie or series. From the admin's perspective, they can independently add new movies or series. It will first be responsive in desktop but may require additional implementation to use in android.

V. SYSTEM ARCHITECTURE

The system will have a three-layer structure. From USER to FRONTEND to BACKEND to DATABASE. And the frontend will handle the interface of the user using Next.js, HTML, CSS, JavaScript, whereas the backend will process requests as well as manage logic using Node.js or with FastAPI. Finally, the

database will store user information and movie/series data in a table using MySQL. We may use Xampp for the MySQL database system. An ER diagram for the database may also be drawn using Lucid Charts if needed.

VI. OUTCOME:

A cloud based movie streaming web application which will have movie browsing as well as search features and adding to watchlist functionality. It will have an appropriate login page for both user and admin.

VII. Conclusion

We know the limitations and challenges we might face. But we will try to implement as much as a full stack web developers do. It will help us in our technical field in our real life to create an impact in the society and gain practical software development hands on experience